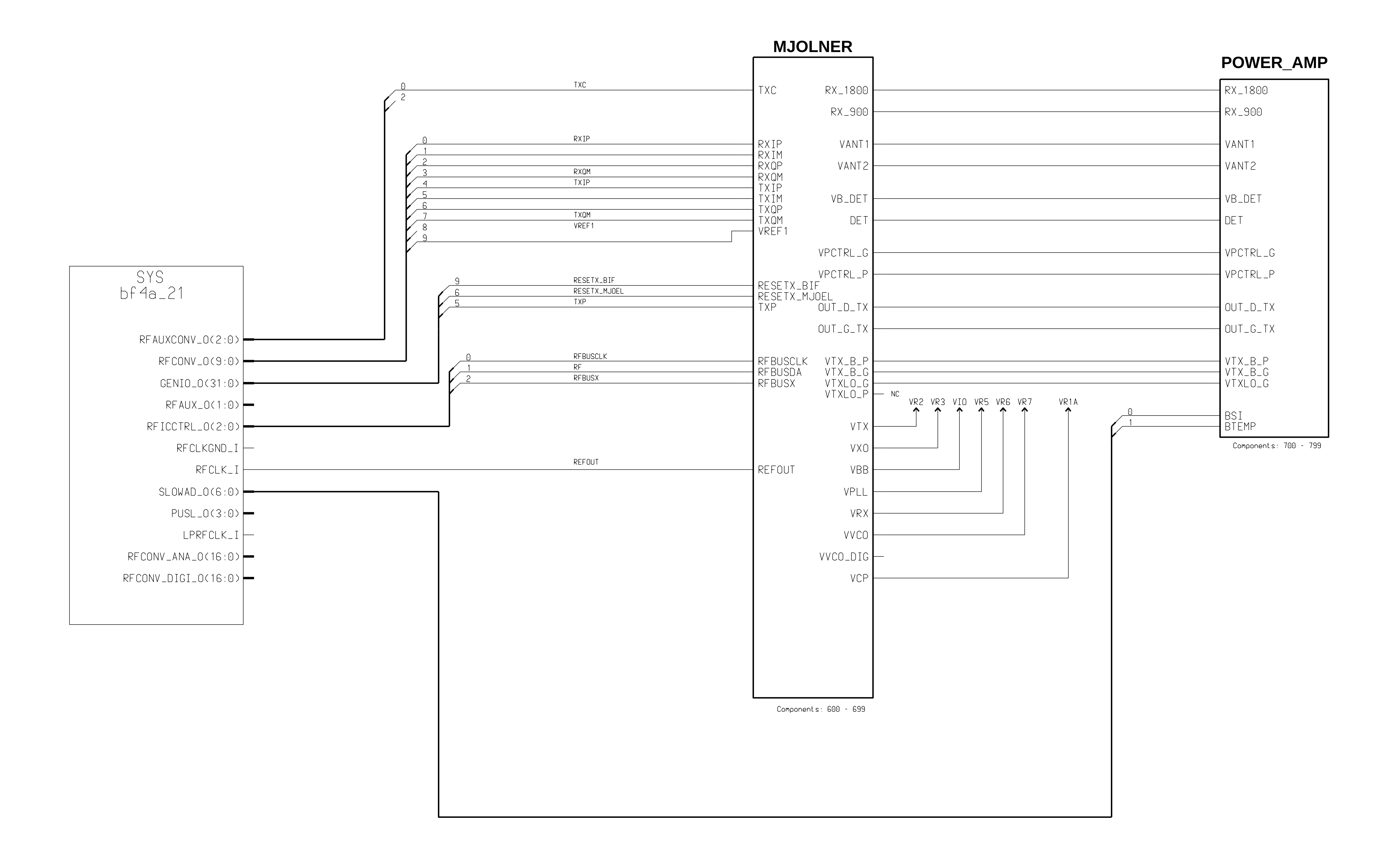
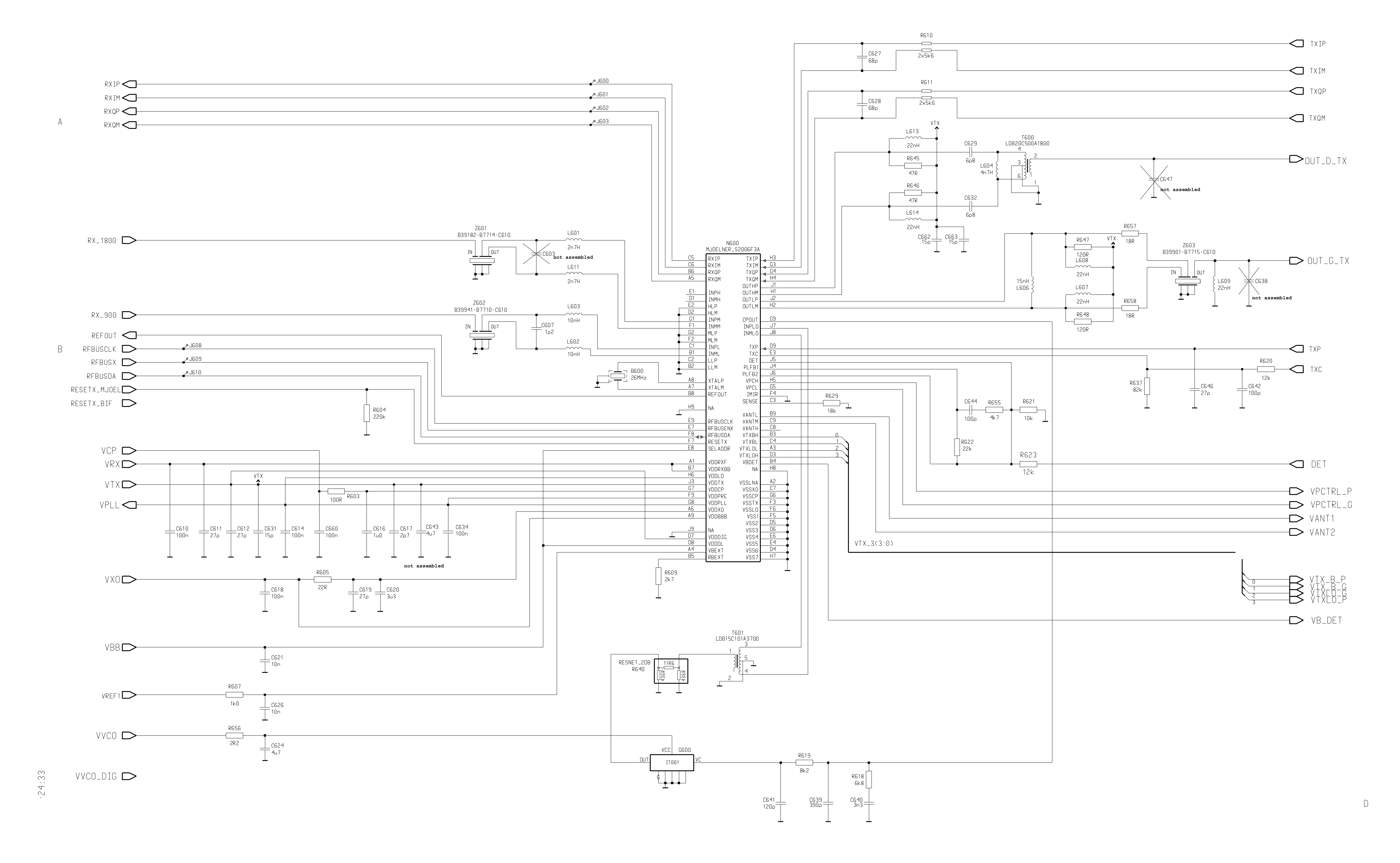
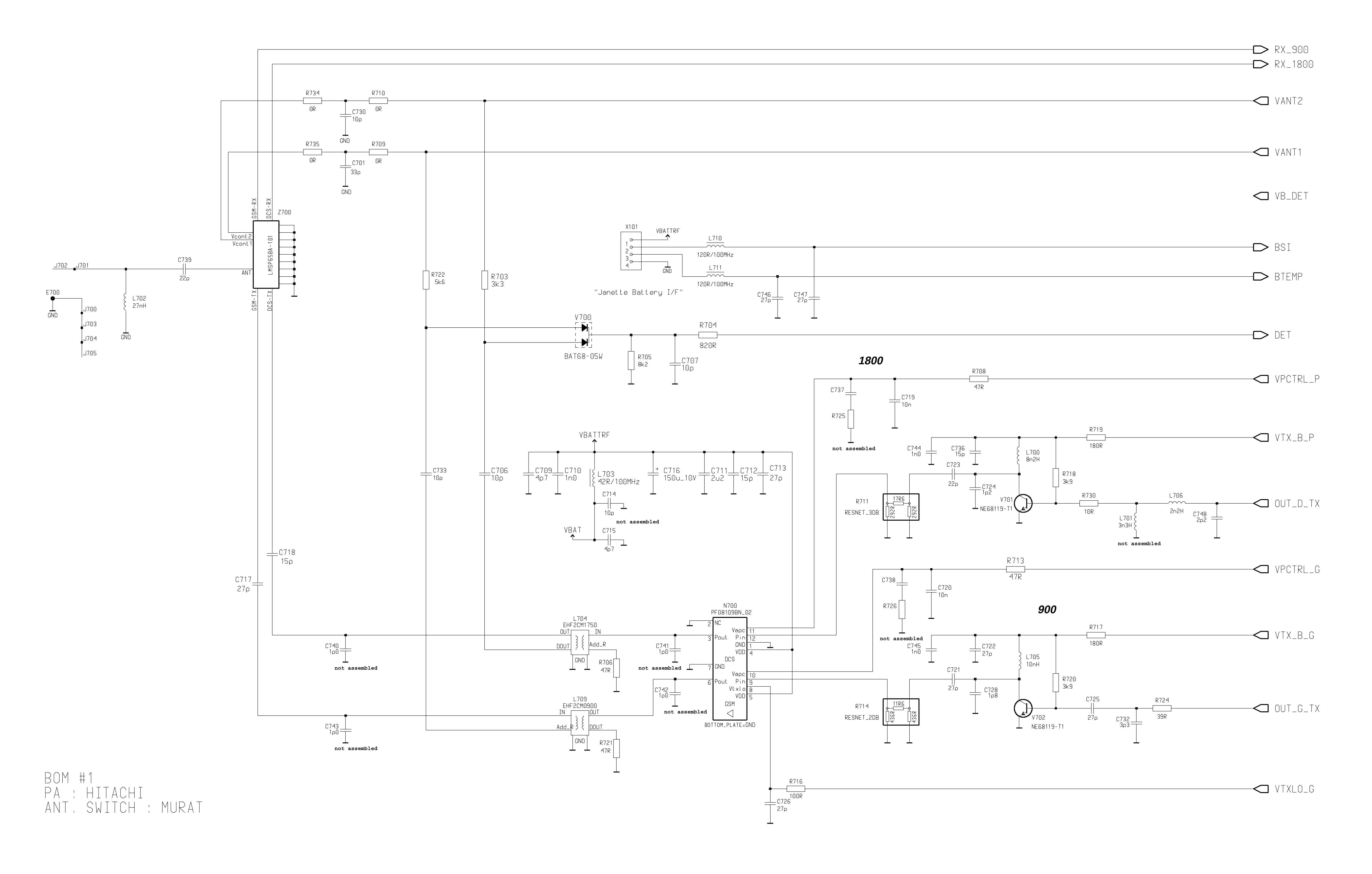
RF & BB


MJOLNER
POWER_AMP
SYS
bf4a_21
RFAUXCONV_O(2:0)
RFCONV_O(9:0)
GENIO_O(31:0)
RFAUX_O(1:0)
RFICCTRL_O(2:0)
RFCLKGND_I
RFCLK_I
SLOWAD_O(6:0)
PUSL_O(3:0)
LPRFCLK_I
RFCONV_ANA_O(16:0)
RFCONV_DIGI_O(16:0)
TXC
RXIP
RXIM
RXQP
RXQM
TXIP
TXIM
TXQP
TXQM
VREF1
RESETX_BIF
RESETX_MJOEL
TXP
RFBUSCLK
RFBUSDA
RFBUSX
RF
REFOUT
RX_1800
RX_900
VANT1
VANT2
VB_DET
DET
VPCTRL_G
VPCTRL_P
OUT_D_TX
OUT_G_TX
VTX_B_P
VTX_B_G
VTXLO_G
VTXLO_P
NC
VR2 VR3 VIO VR5 VR6 VR7 VR1A
VTX
VXO
VBB
VPLL
VRX
VVCO
VVCO_DIG
VCP
BSI
BTEMP
Components: 600 - 699
Components: 700 - 799

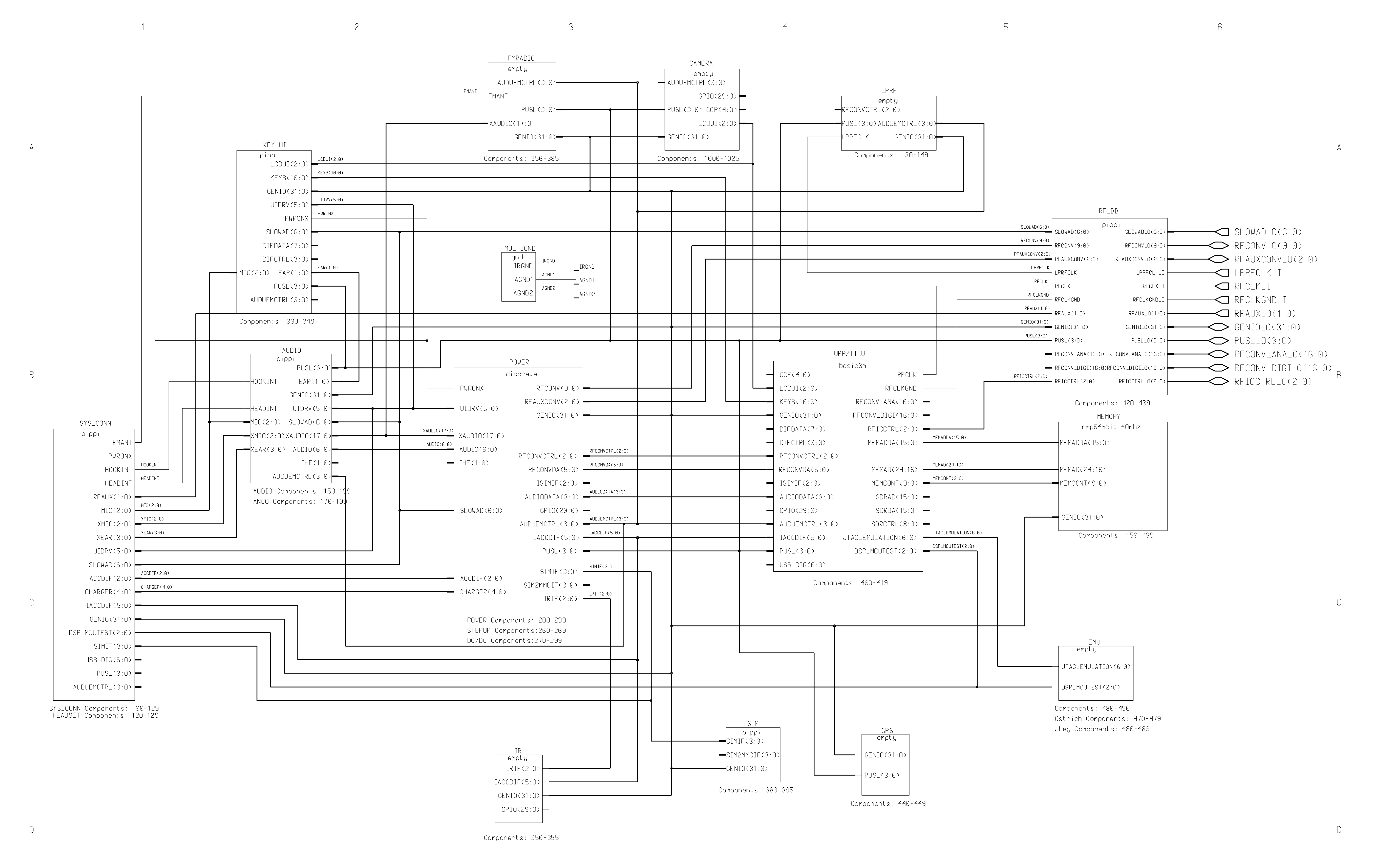
Mjoelner



Power Amplifier

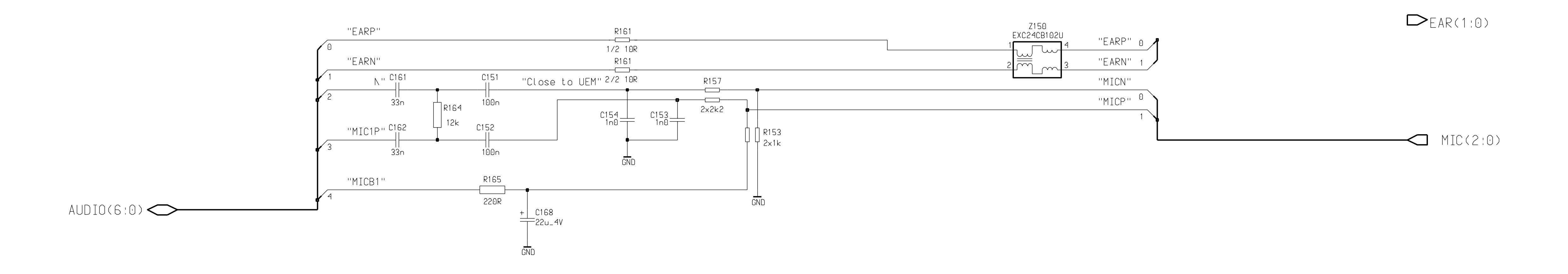


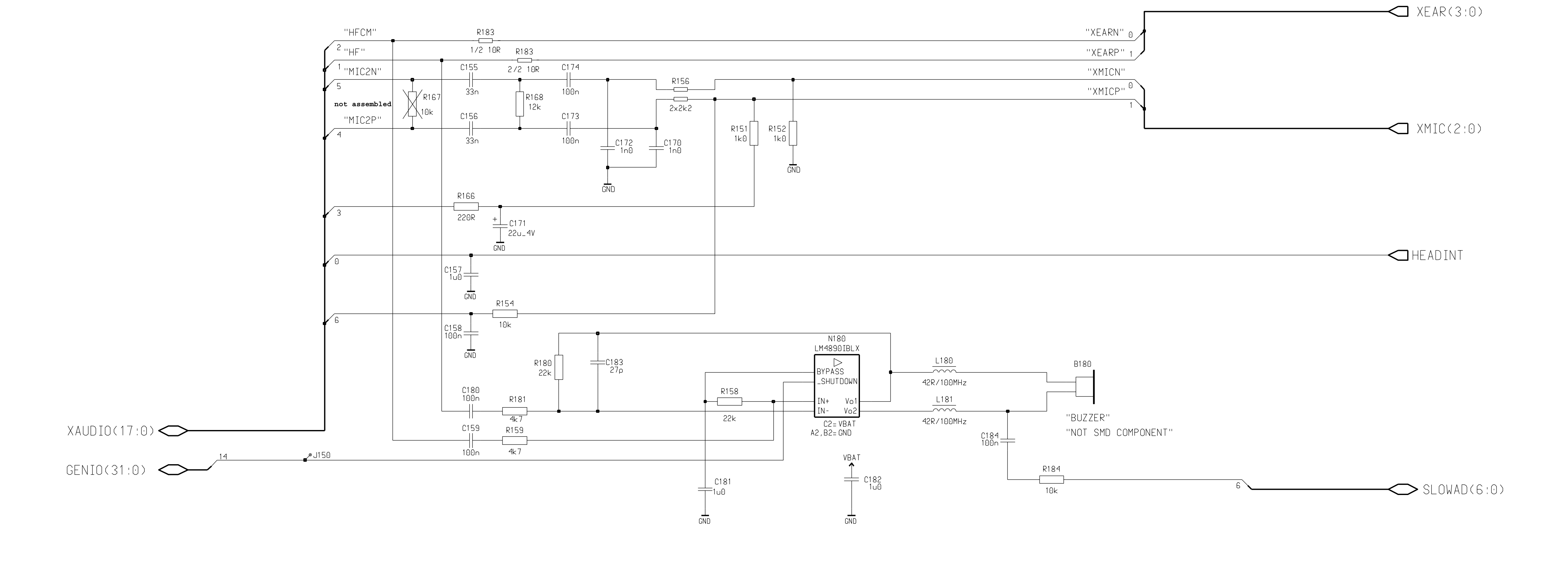
System


FMRADIO
CAMERA
LPRF
KEY_UI
MULTIGND
RF_BB
AUDIO
POWER
UPP/TIKU
SYS_CONN
MEMORY
EMU
SIM
GPS
IR
Components: 356-385
Components: 1000-1025
Components: 130-149
Components: 300-349
Components: 420-439
Components: 400-419
Components: 450-469
Components: 380-395
Components: 440-449
Components: 350-355
POWER Components: 200-299
STEPUP Components:260-269
DC/DC Components:270-299
SYS_CONN Components: 100-129
HEADSET Components: 120-129

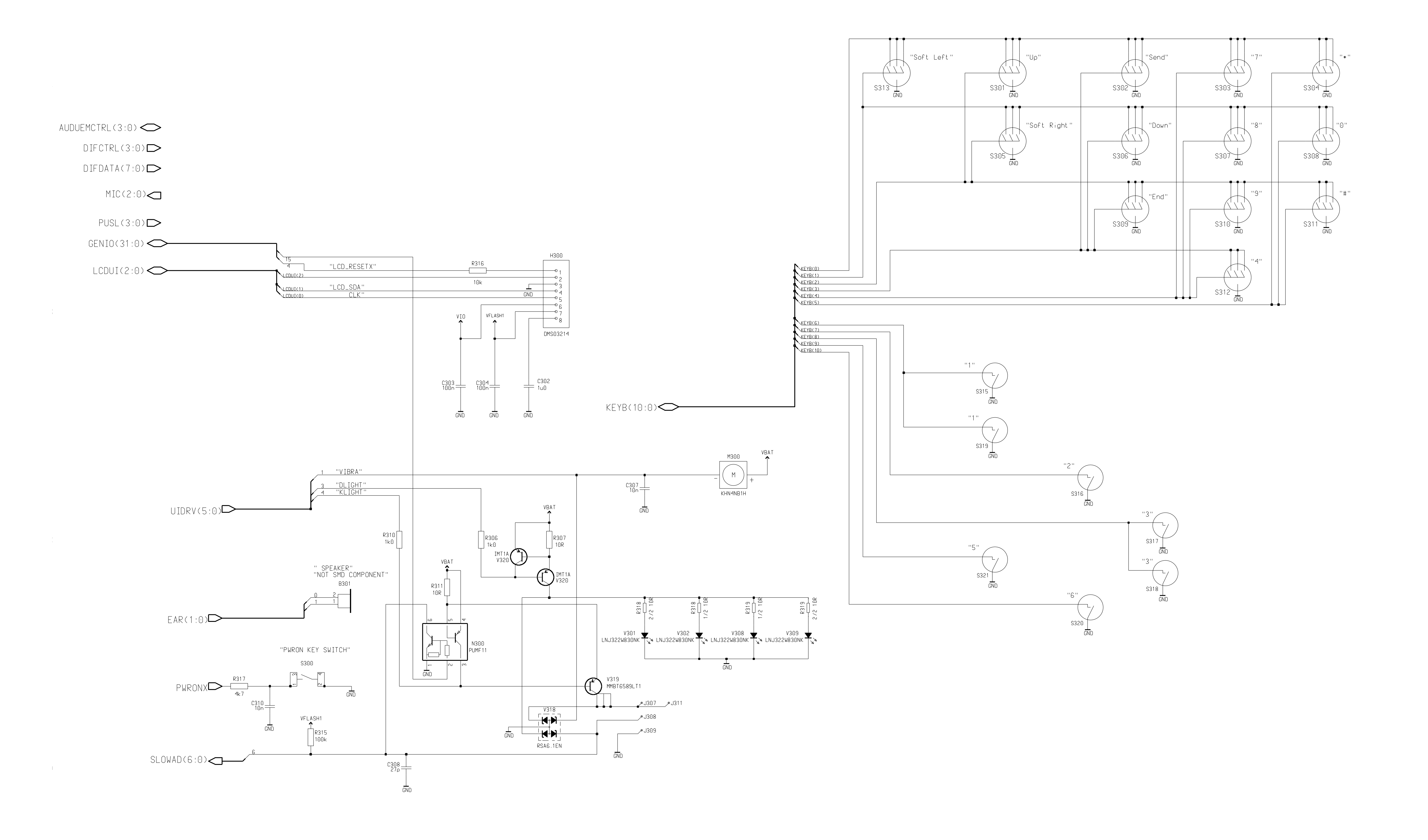
Audio Interface



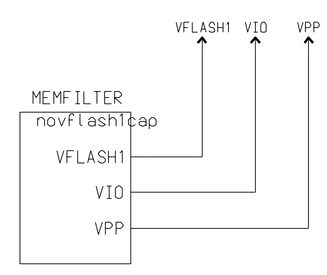


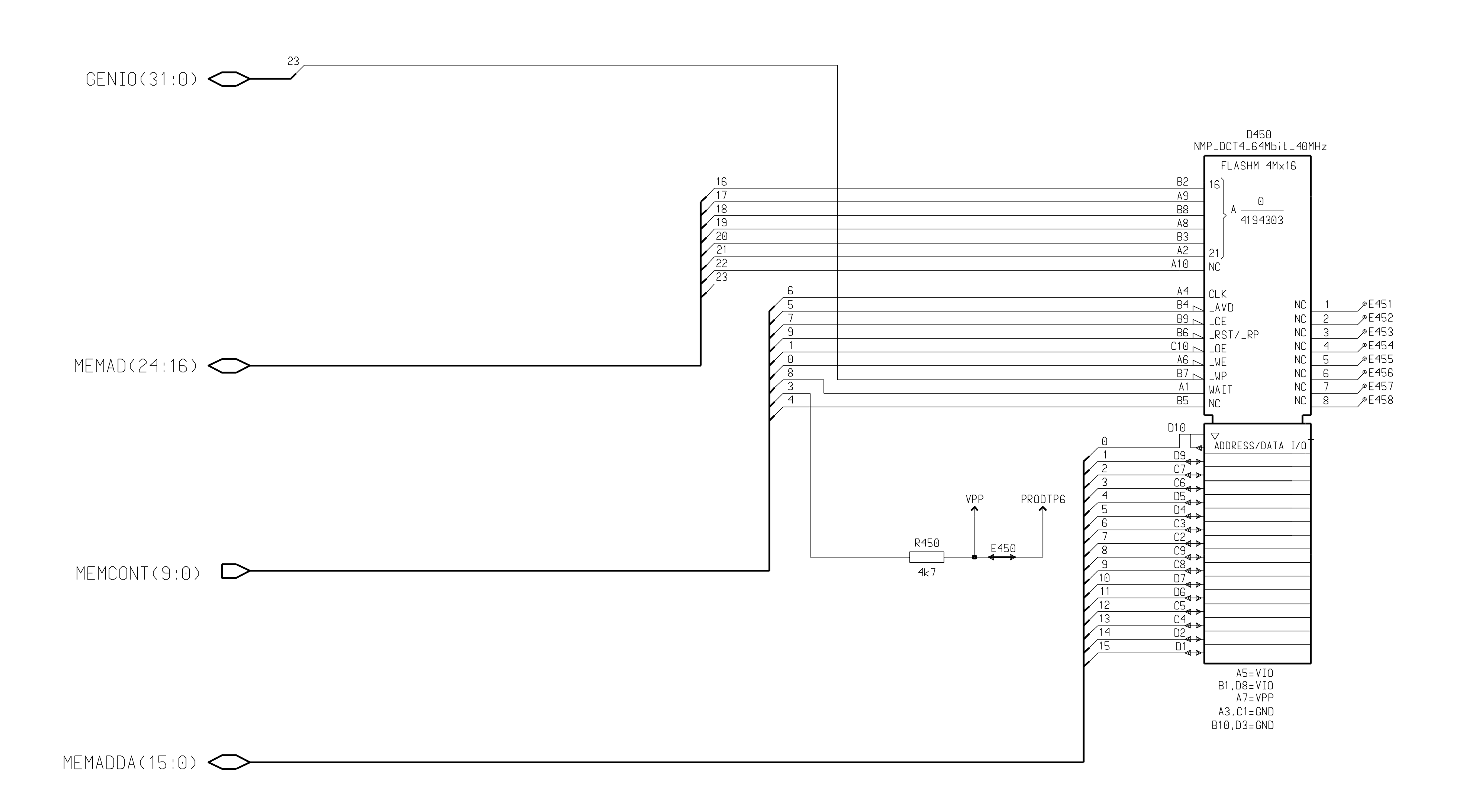


Key User Interface

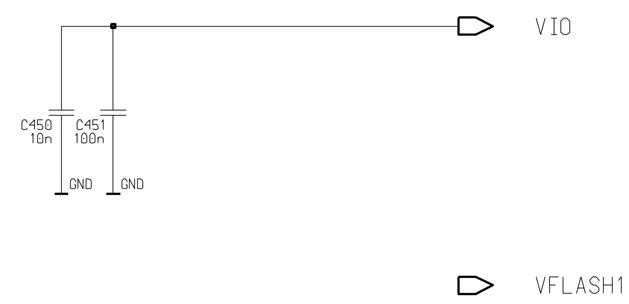


Flash Memory



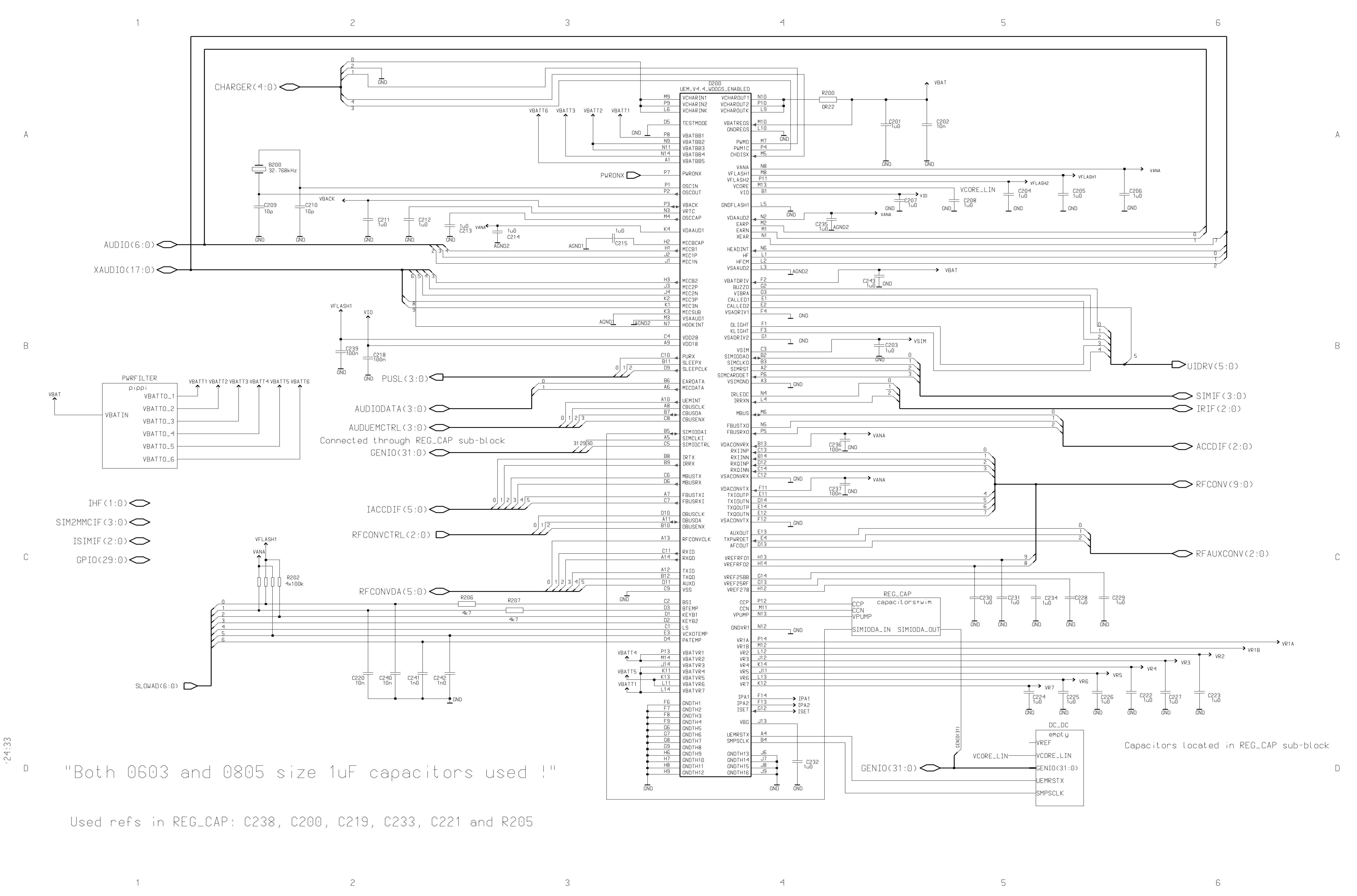


Memory filter

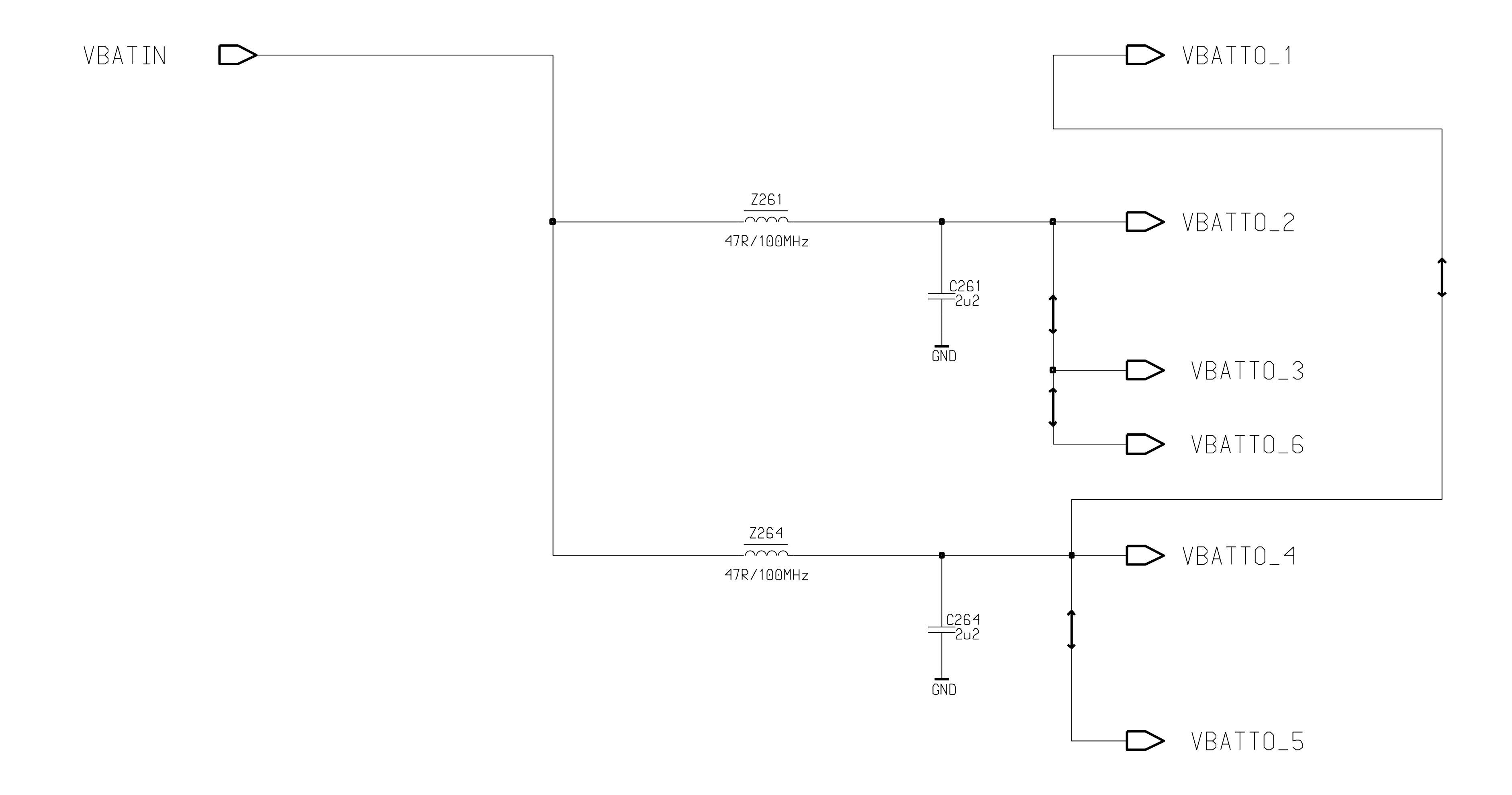




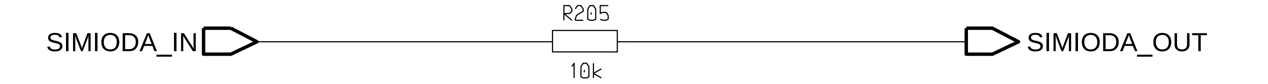
System - Discrete Power Mangement

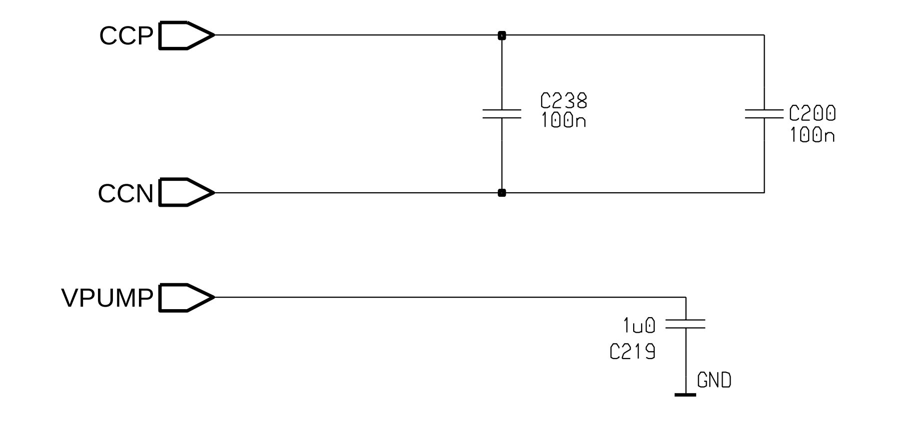


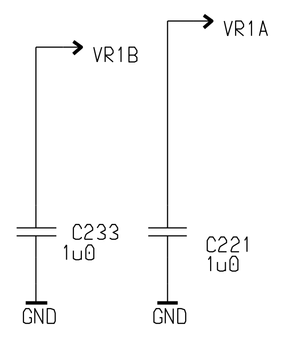
UEM Power filter



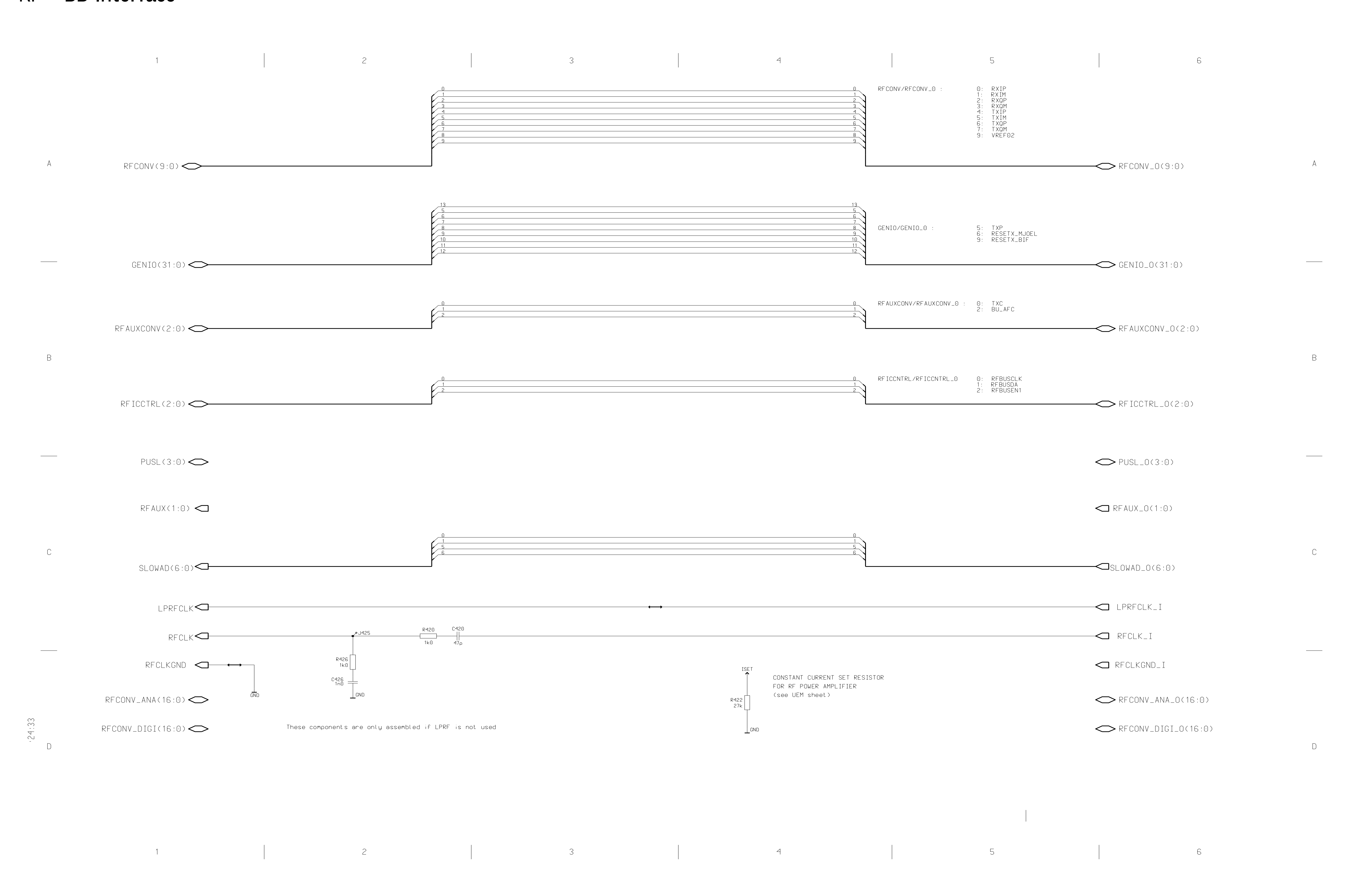
Charge Pump Capacitors



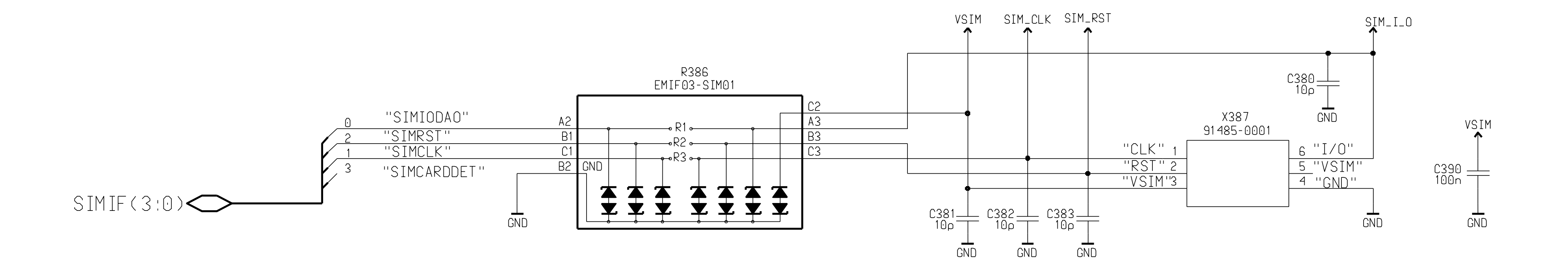




RF - BB Interface



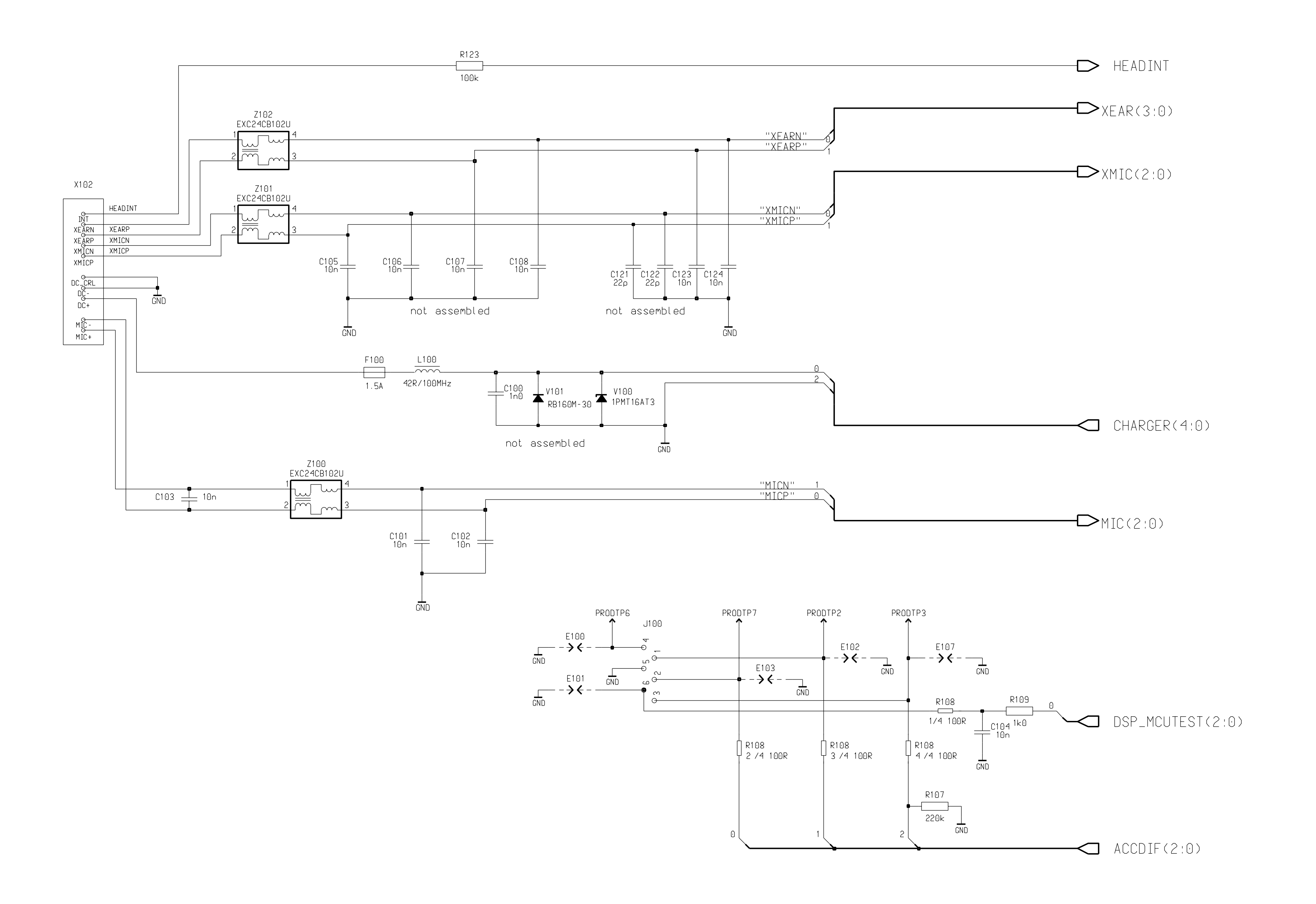
SIM Reader



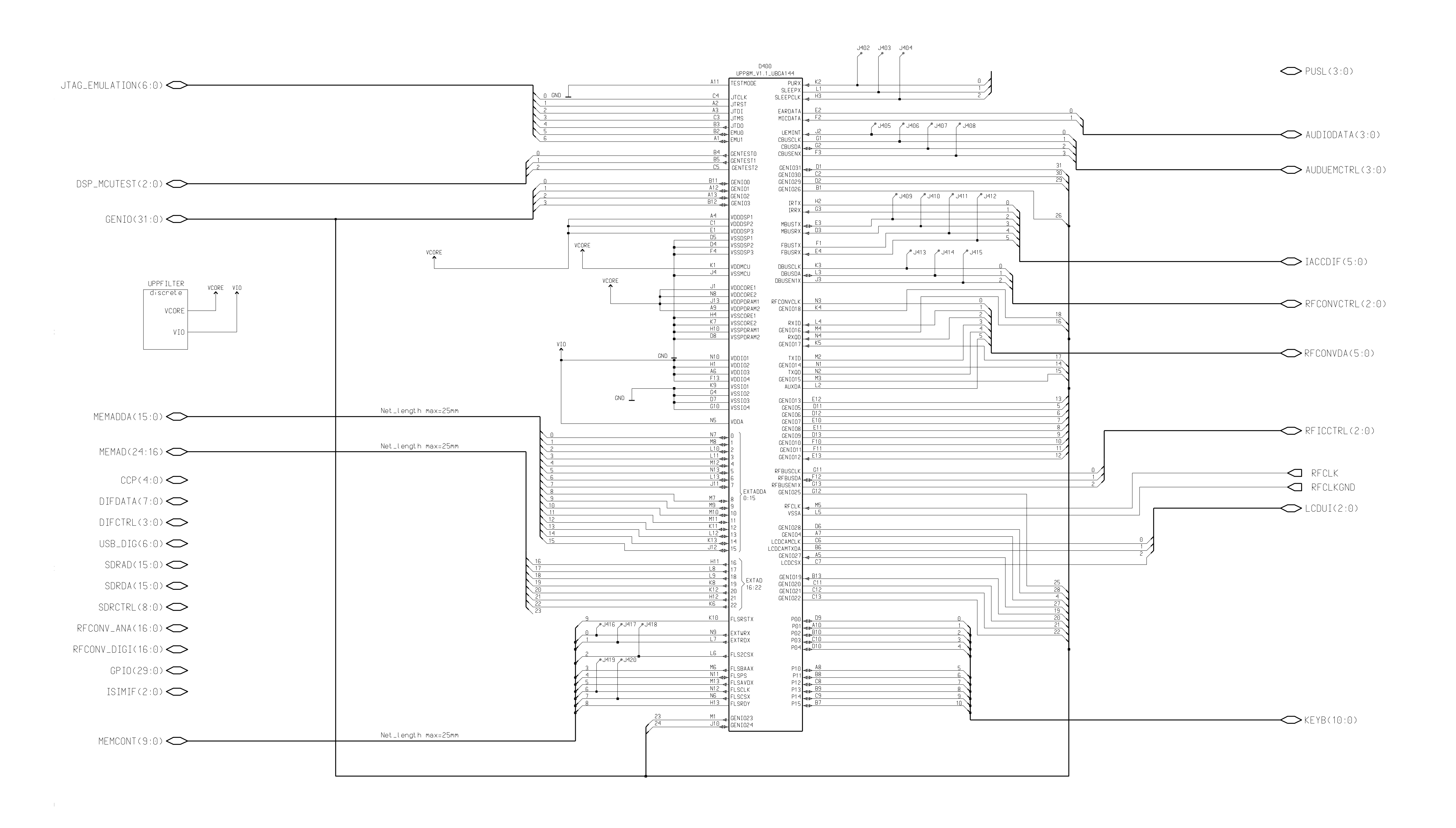
X38

CLK I/O
RST VCC
VCC GND

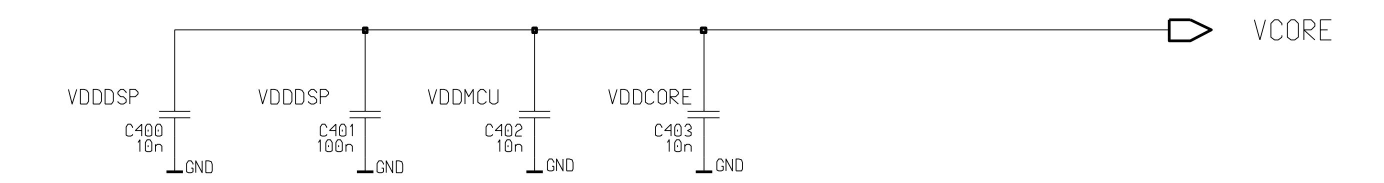
System Connector

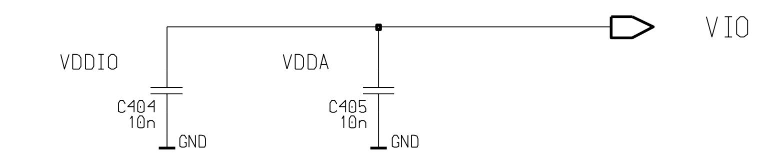


UPP

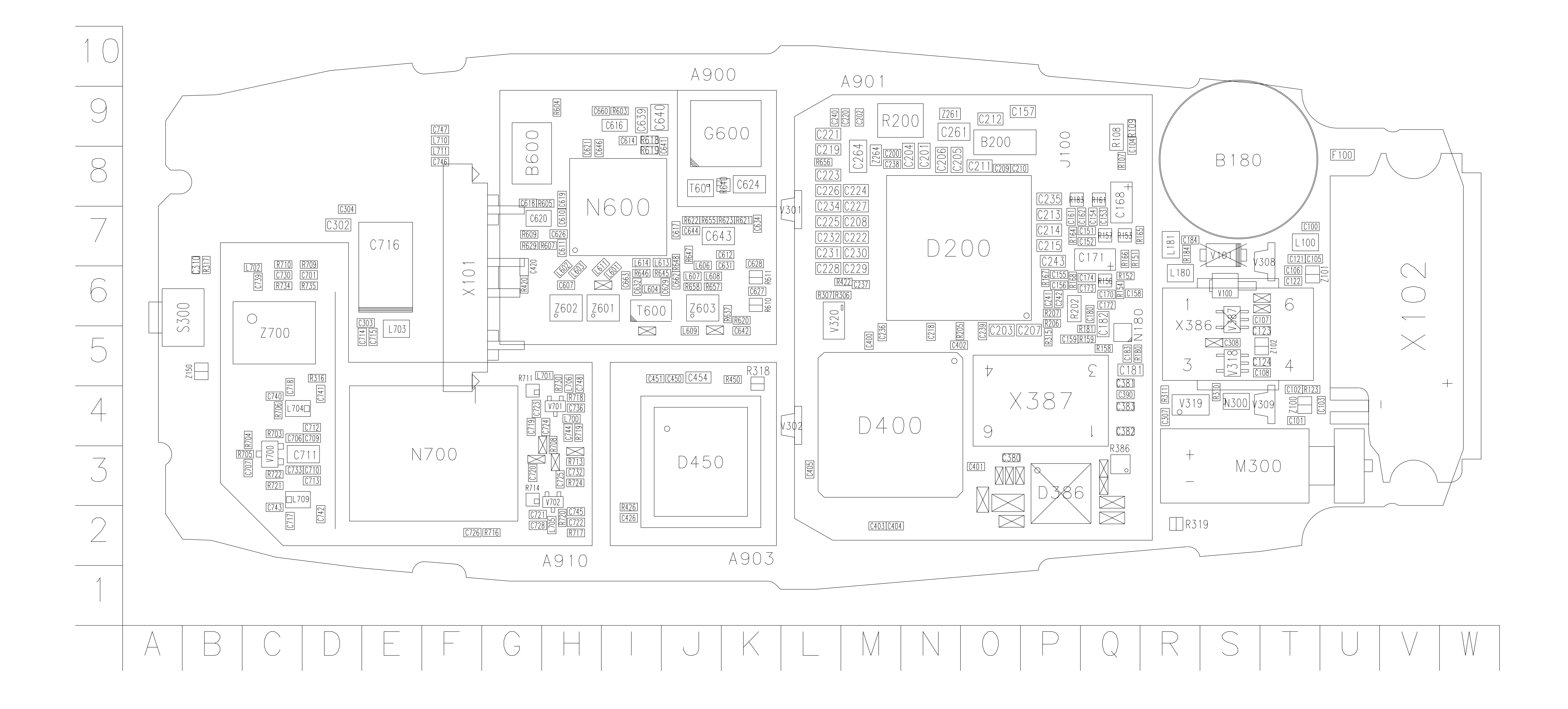

JTAG_EMULATION(6:0)
DSP_MCUTEST(2:0)
GENIO(31:0)
UPPFILTER
discrete
VCORE
VIO
MEMADDA(15:0)
MEMAD(24:16)
CCP(4:0)
DIFDATA(7:0)
DIFCTRL(3:0)
USB_DIG(6:0)
SDRAD(15:0)
SDRDA(15:0)
SDRCTRL(8:0)
RFCONV_ANA(16:0)
RFCONV_DIGI(16:0)
GPIO(29:0)
ISIMIF(2:0)
MEMCONT(9:0)
Net_length max=25mm
D400
UPP8M_V1.1_UBGA144
PUSL(3:0)
AUDIODATA(3:0)
AUDUEMCTRL(3:0)
IACCDIF(5:0)
RFCONVCTRL(2:0)
RFCONVDA(5:0)
RFICCTRL(2:0)
RFCLK
RFCLKGND
LCDUI(2:0)
KEYB(10:0)

Discrete decoupling capacitors





Layout Diagram of BF4A - Top



Layout Diagram of BF4A - Bottom

